these claims, and particularly claim 1, define a device that is not disclosed in the applied reference.

Before discussing the contribution of the invention and the manner in which claim 1 distinguishes patentably over the applied reference, it must be noted that the explanation of the rejection presented in the Office action relies on certain elements shown in figures 1 and 2 of the applied reference and other elements shown in figures 3-6 of the reference. According to the specification of this reference, Figures 1 and 2 illustrate prior art arrangements in which a table carries permanent magnets and a stationary bed carries coils, which coils are wound around portions of an armature made of magnetic material. In contrast, Figures 3-6 illustrate an embodiment of the invention to which reference is directed, in which the table is provided with coils that are not associated with magnetic cores and a bed is provided with two rows of permanent magnets.

Moreover, Figures 1 and 2 of the reference illustrate a DC motor, while Figures 3-6 illustrate an AC motor.

The specification of this reference clearly discloses that Figures 1 and 2 illustrate a prior art motor that is fundamentally different from that illustrated in Figures 3-6, which differs patentably from the prior art motor.

In view of these facts, there can be no basis for asserting that this reference teaches a device that combines some elements shown in Figures 1 and 2 and some elements shown in Figures 3-6, and it cannot be said that this reference anticipates such a device. Indeed, it would quite clearly be contrary to the teachings of this reference to construct such a device. Furthermore, it is not seen how individual features

of the two devices could be combined to produce an operative device.

The present invention is directed to a novel sliding means having an onboard linear AC motor that includes a bed of magnetic material, a table of magnetic material that is moveable with respect to the bed, a field magnet having five unlike poles alternating in polarity in the moving direction of the table and three armature windings installed on a surface of the bed. The armature windings are composed of coreless coils arranged in juxtaposition in the lengthwise direction of movement of the table, and each of the armature windings is connected to receive a respective phase of a three-phase current to produce an electromagnetic force to drive the table along the bed.

In the sliding means according to the present invention, the bed is made of magnetic material so that it serves as a magnetic yoke, while the table is also made of magnetic material to form a coil yoke. These features contribute to the creation of a simple and compact construction for the sliding means.

The armature windings, being juxtaposed along the direction of movement of the table, and being flat, allow the sliding means to be given a small height, thereby further contributing to the compact structure of the device.

The field magnet is a permanent magnet having only five poles. This is the smallest number of poles needed to cooperate with three windings and the small number of magnet poles also contributes to the creation of a compact and simple structure.

In contrast to the present invention, the prior art device shown in Figures 1 and 2 of the reference has, it appears, four permanent magnets on the table and magnetic

coils on the bed, which coils are supplied with direct current. It thus be immediately apparent that this device differs fundamentally from that of the present invention in a number of respects, including, but not limited to, the fact that: the sliding means according to the present invention includes, as defined in claim 1, three armature windings, which are composed of coreless coils each having a substantially rectangular flat shape; the coils are connected to receive respective phases of the three-phase current; and the field magnetic that has only five poles.

The sliding means defined in claim 1 of the present application differs from the device shown in figures 3-6 of the reference at least by the following limitations: the field magnet is mounted on the movable table; the field magnet is composed of only five poles; and the armature windings are installed on the stationary bed. Furthermore, as defined in claim 1, the armature windings are arranged in juxtaposition in the lengthwise direction of movement of the table, whereas in the embodiment shown in Figures 3-6 of the reference, the armature windings overlap one another to a substantial degree.

As already noted above, one skilled in the art would have no logical reason to believe that an operative device could be constructed by somehow mixing certain features of the DC motor shown in Figures 1 and 2 of the reference with isolated features of the AC motor shown in Figures 3-6 of the reference. Furthermore, neither of the reference devices contains only five magnets. More importantly, however, since claim 1 distinguishes in many respects over each of the dissimilar devices disclosed in the applied reference, the rejection of the claim 1 of the basis of that reference is not justified.

The rejection presented in section 3 of the action is traversed at least for the reason that the rejected claims depend from claim 1 and should be considered allowable along therewith.

Accordingly, the prior art rejections presented in the action are traversed and reconsideration and withdrawal of those rejections is requested.

If the above amendment should not now place the application in condition for allowance, the Examiner is invited to call undersigned counsel to resolve any remaining issues.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with markings showing changes made."**

Respectfully submitted,

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